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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,576	11/01/2000	Fukuharu Sudo	450101-02387	9090

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FROMMER LAWRENCE & HAUG
745 FIFTH AVENUE- 10TH FL.
NEW YORK, NY 10151

EXAMINER

HAN, QI

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 04/05/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/674,576

Applicant(s)

SUDO ET AL

Examiner

Qi Han

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/17/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-7,9,11 and 23-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 2-7,9,11 and 23-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/17/2003 has been entered.

Response to Amendment

2. The Applicant(s) amended claims 2-7, 9, 11 and 23-28, cancelled claims 1, 8, 10 and 12-22, and added new claims 23-28 (see paper 8, pages 2-9), and filed the RCE examination request (Paper 10) on 01/15/2004.

Response to Arguments

3. Applicant's arguments with respect to claims 2-7, 9, 11 and 23-28 have been considered but are moot in view of the new ground(s) of rejection since the arguments are based on the newly added claims (paper 8, pages 12-13).

Claim Objections

4. Claim 5 is objected to because the limitation of "the category having the maximum variations" in the amended claim (in the second paragraph of the claim) lacks sufficient

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antecedent basis in the claim(s). In addition, the limitation of “the maximum variations” is not clearly defined and lacks support in the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 4 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 4 and 5, the limitation of “wherein if **predetermined number** of content items is not less than a pre-set number ... wherein if **predetermined number** of content items is less than a pre-set number ...” in the amended claim introduces new subject matter, because it is not supported by the original claims and the specification. For example, Figs. 2-4 clearly suggest that the “number of candidate musical numbers” is **not** predetermined; in contrast, it is determined by each of requests.

Claim Rejections - 35 USC § 103

6. Claims 2-3, 9, 11, 23 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hedin et al. (US 6,185,535) hereinafter referenced Hedin, in view of Ranger (US 5,999,940).

As per **claim 23**, Hedin discloses a voice control of a user interface to service applications (title), comprising:

a client configured to transmit first input speech information to a server over a network (Fig. 1a and column 4 line 44 to column 5 line 33, 'client part 101', 'server part 103', 'data that communicated over the first digital link 105' that inherently includes a network); and

a server configured to receive the first input speech information from said client, and generate contents selection information in response to the first input speech information (Fig. 3 and column 6 lines 20-39, 'remote application part (RAP) 205', 'external services and content (ESC) 207'; column 8 line 56 to column 9 line 57, 'speech recognition', 'provide information and content over the Internet', 'it may be provided with a list of recognizable TP commands' that corresponds to contents selection information; column 10 line 30 to column 11 line 40, 'part of a menu' and 'complete menu' that also corresponds to contents selection information),

wherein the content selection information enable said client to provide the selection as second input speech information to the server so that the server can interpret the selection in the second input speech information only within those possible contents items, with substantially fewer errors than without the contents selection information (column 9 line 36 to column 11 line 40, 'In addition to being able to recognize isolated words, the RAP's ASR 307 may also have

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capability of recognizing continuous speech', 'ask user repeat name of person who is to be called'; column 10 line 30 to column 11 line 40, 'part of a menu' and 'complete menu').

Even though, Hedin suggests that the system provides the contents selection information (as state above), Hedin fails to expressly disclose that "the contents selection information enables said client to select at least one contents item from a **predetermined number of contents items** that narrows the possible contents items for selection by said client". However, this feature is well known in the art as evidence by Ranger who discloses a interactive information discovery tool and method to gather information dynamically from one or more data sources (abstract), comprising a predefined threshold parameter 'N' for comparing the number of content items and indicating how many contents items must be present in order to trigger the automatic content analysis (column 19, lines 48-52, and Fig. 7 block 700). Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify Hedin by specifically providing a test condition based on whether the number of content items is greater than a predefined threshold, as taught by Ranger, for the purpose of triggering different further operations.

As per **claim 2** (depending on claim 23), Hedin in view of Ranger further discloses the client includes speech recognition means for performing speech recognition on said first and second input speech information, (column 4, line 66 to column 5, line 11, 'the client part 101 includes a simple ASR (automatic speech recognition)', 'recognizing a small number isolated words' 'a menu item', so that the client is capable of performing speech recognition on the first and second input speech information).

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As per **claim 3** (depending on claim 23), Hedin in view of Ranger further discloses said server includes speech recognition means for performing speech recognition on said first and second input speech information received from said client over the network, (column 9 lines 1-67, 'an ASR 307 that will recognize the TP audio encoded words', 'able to recognize isolated words, ... may also have capability of recognizing continuous speech', so that the server is capable of performing speech recognition on the first and second input speech information).

As per **claim 25**, it recites a client for a content selection system. The rejection is based on the same reason described for claim 23, because claim 25 recites same or similar limitation(s) as claim 23.

As per **claim 9** (depending on claim 25), the rejection is based on the same reason described for claim 2, because claim 9 recites same or similar limitation(s) as claim 2.

As per **claim 26**, it recites a server for a content selection system. The rejection is based on the same reason described for claim 23, because claim 26 recites same or similar limitation(s) as claim 23.

As per **claim 11** (depending on claim 26), the rejection is based on the same reason described for claim 3, because claim 11 recites same or similar limitation(s) as claim 3.

As per **claim 27**, it recites a content selection method. The rejection is based on the same reason described for claim 23, because claim 27 recites same or similar limitation(s) as claim 23.

7. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hedin in view of Ranger, and further in view of Will (US 6,167,117) and well known prior art (MPEP 2144.03).

As per **claim 4** (depending on claim 23), as best understood in view of claim rejection under 35 U.S.C. 112 1st (see above), Hedin in view of Ranger further discloses the interpretation of the selection in the second input speech information includes calculating the similarity in one or more acoustic characteristic quantities for each contents item between interpreted second input speech information and the contents item, (Hedin: Fig. 3 and column 9 lines 12-35, ‘to perform speech recognition, the RAP’s exemplary ASR 307 includes ... feature matching (calculating the similarity) and decision unit 311 and a RAP reference database 313’, ‘able to recognize isolated words, ... may also have capability of recognizing continuous speech’, so that the server is capable of performing speech recognition on the first and second input speech information).

But, Hedin in view of Ranger fails to expressly disclose “determining the number of contents items for which the calculated value of similarity has exceeded a pre-set threshold value”. However, this feature is well known in the art as evidence by Will who discloses a speech recognition engine produce an output consisting of a list of the “N best” matches to names (contents items) database for which the match was above a give (pre-set) threshold value (column 6, lines 45-52). Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify Hedin in view of Ranger by specifically providing determining the number of matched items whose similarity measure being above pre-set threshold, as taught by Will, for the purpose of improving speech recognition performance (Will: column 2, lines 10-11).

Therefore, the combined system may decide to continue processing if the matched number is less the a pre-set number, for example, selecting one of the items in the list for further matching operation (Hedin: column 9, line 56 to column 10, line 35), which corresponds to the

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claimed “wherein if said predetermined number of contents items is less than said pre-set number, the interpretation process prepares the contents selection information for each of said contents items for which the similarity value has exceeded said pre-set threshold value”; otherwise the system may trigger other operations (Ranger: column 19, line 48 to column 20, line 24). But, Hedin in view of Ranger in view of Will does not expressly disclose “if said predetermined number of contents items is not less than a pre-set number, the interpretation process acquires speech information different from the second input speech information to repeat the similarity calculation”. However, an official notice is taken that it is well known in the art to provide additional and/or extended information for a voice browser or data query system when a previous query is too broad and gets too many hits. Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify Hedin in view of Ranger in view of Will by specifically providing additional and/or extended information when the previous query is too broad and gets too many hits for a voice browser or data query system, for the purpose of narrowing down the hits and reducing screening items.

As per **claim 5** (depending on claim 23), the rejection is based on the same reason described for claim 4, because claim 5 recites same or similar limitation(s) as claim 4.

8. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hedin in view of Ranger, and further in view of Ladd et al. (USPN 6,493,671) hereinafter referenced Ladd.

As per **claim 6** (depending on claim 2), Hedin in view of Ranger does not expressly disclose a verifying mechanism for speech recognition as the claimed “said speech recognition means includes means for verifying whether or not the speech recognition on said first and

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second input speech information has been made correctly; If the speech recognition is verified by said verification means to be made correctly, then said first and second input speech information, processed with speech recognition, is output; if the speech recognition is verified by said verification means not to be made correctly, then speech recognition to output the speech information processed with said speech recognition.” However, this feature is well known in the art as evidenced by Ladd who discloses a markup language for interactive service to notify a user of an event and methods thereof, comprising a voice browser 250 (Fig. 3) (column 7, line 6) and an automatic speech recognition (ASR) unit 254, 12-37), and the “DIALOG” element and the associated “STEP” element of a markup language define a dialogue interpretation between the voice browser and user, including “confirm” element (column 18, lines 1-39) for allowing user verifying the spoken content. Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify Hedin in view of Ranger by specifically providing a verifying mechanism for speech recognition, as taught by Ladd, for the purpose of increasing speech recognition accuracy.

As per **claim 7** (depending on claim 3), as best understood in view of claim rejection under 35 U.S.C. 112 1st and 2nd (see above), the rejection is based on the same reason described for claim 6, because claim 7 recites same or similar limitation(s) as claim 6.

9. Claims 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hedin in view of Ranger, and further in view of Milsted et al. (USPN 6,263,313 B1), hereinafter referenced as Milsted.

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As per **claim 24** (depending on claim 23), Hedin in view of Ranger fails to expressly disclose that "the contents selection information includes categories for title, performer, and genre". However, this feature is well known in the art as evidence by Milsted who discloses a method and apparatus to create encoded digital content, and further discloses determining the genre of the music selected (column 66, lines 53-54) and a simple browser interface with list of titles, performers or new releases to select from (column 74, lines 39-41). Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify Hedin in view of Ranger by specifically providing categories for title, performer, and genre, as taught by Milsted, for the purpose of increasing flexibility of selecting contents.

As per **claim 28** (depending on claim 27), the rejection is based on the same reason described for claim 24, because claim 28 recites same or similar limitation(s) as claim 24.

Conclusion

10. Any response to this office action should be mailed to:
Commissioner of Patents and Trademarks, P.O. Box 1450, Alexandria, VA22313-1450
or faxed to:
(703)-872-9314
Hand-delivered responses should be brought to:
Crystal Park II, 2121 Crystal Drive, Arlington. VA. Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I Han whose telephone numbers is (703) 305-5631. The examiner can normally be reached on Monday through Thursday from 9:00 a.m. to 7: p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richmond Devil, can be reached on (703) 305-6954.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

QH/he
March 22, 2004


RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER